

Sigmoidorectal Intussusception

Mimicking Rectal Prolapse

A Diagnostic Pitfall with Surgical Implications

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CLINICAL BACKGROUND

- 1 Adult intussusception accounts for ~5% of all intussusception cases and ~1% of bowel obstructions
- 2 Unlike pediatric forms, adult intussusception almost always has an identifiable structural lead point
- 3 Colonic intussusception carries a HIGH risk of malignancy — accurate diagnosis is essential
- 4 Sigmoidorectal subtype is exceptionally uncommon, largely confined to isolated case reports
- 5 May clinically mimic primary rectal prolapse — a significant and dangerous diagnostic pitfall

CASE OBJECTIVES

Highlight a rare presentation that masquerades as rectal prolapse

Demonstrate the pivotal diagnostic role of contrast-enhanced CT

Discuss oncologic surgical principles in colonic intussusception

Underscore the importance of post-polypectomy surveillance intervals

CASE PRESENTATION

PATIENT PROFILE

57-year-old female No significant past medical history

Chief complaint: Irreducible anorectal mass — acute onset 48 hrs prior

Associated: Local pain + minor rectal bleeding

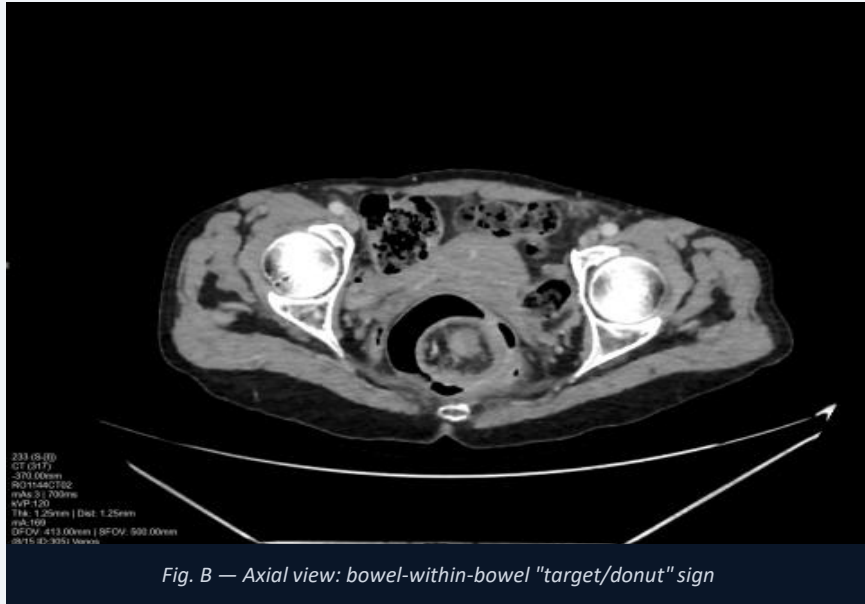
History: Sigmoid polyp (1 cm tubulovillous adenoma) resected 2 years prior — no interval surveillance

CLINICAL EXAMINATION FINDINGS

- Large, edematous, friable cauliflower-shaped mass protruding through anal canal (~6 cm)
- Tender on palpation with areas of superficial bleeding
- Digital rectal exam: no additional intraluminal lesions
- **Manual reduction NOT possible → suspicion beyond primary rectal prolapse**
- Labs: mild leukocytosis ($9.68 \times 10^3/\mu\text{L}$), reactive thrombocytosis; CRP normal



Fig. A — Clinical examination: cauliflower-shaped anorectal mass, ~6 cm



FINDING: Heterogeneous cauliflower-like mass protruding through anal canal (~44×39.5 mm)

KEY SIGN: Bowel-within-bowel configuration — "target" / "donut" sign — with invaginated mesenteric fat

IMPRESSION: Incomplete sigmoidorectal intussusception. No obstruction, perforation, ischemia, or distant metastasis

STEP 1 Decision	STEP 2 Intraop Confirmation	STEP 3 Reduction	STEP 4 Resection	STEP 5 Anastomosis
Emergency open laparotomy Midline approach chosen for rapid, comprehensive assessment	Sigmoidorectal intussusception confirmed: sigmoid telescoping into rectum	Careful manual reduction performed, revealing pedunculated lead-point lesion	Segmental sigmoid resection including mesentery with negative margins	Termino-lateral colorectal anastomosis (circular stapler); integrity confirmed intraoperatively

⚠ Clinical Rationale: Open approach preferred over laparoscopy due to emergency presentation and limited institutional experience with laparoscopic management of such rare and complex cases. Laparoscopic approaches have been reported in selected patients but were not applicable here.

HISTOPATHOLOGICAL FINDINGS

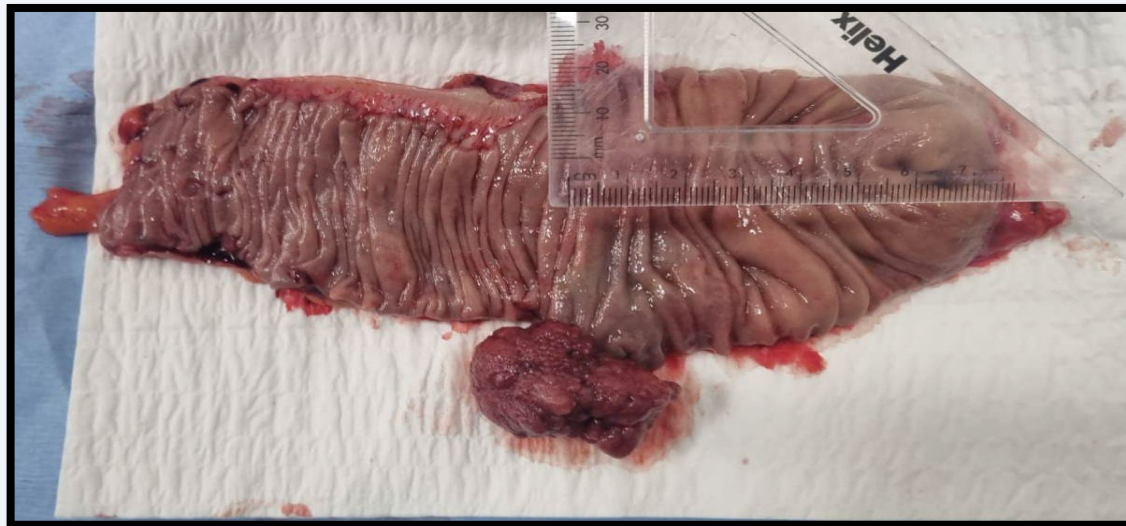


Fig. D — Resected sigmoid colon specimen with pedunculated polyp (lead point)

PATHOLOGY REPORT

Lesion: Pedunculated polypoid lesion — $4.0 \times 3.8 \times 1.2$ cm

Histology: Tubulovillous adenoma with extensive low-grade dysplasia + focal HIGH-GRADE dysplasia

Invasion: NO evidence of invasive carcinoma

Margins/Nodes: All margins clear · 13 pericolic lymph nodes — all negative

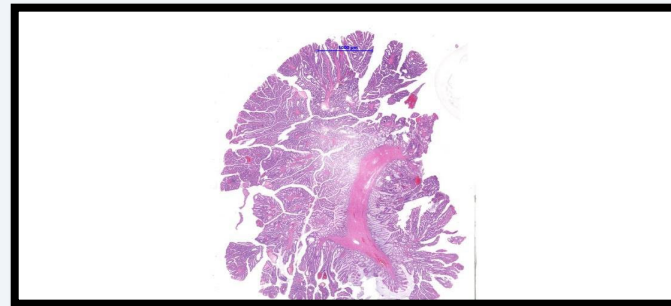


Fig. E — Low power: tubulovillous polyp with dysplastic surface

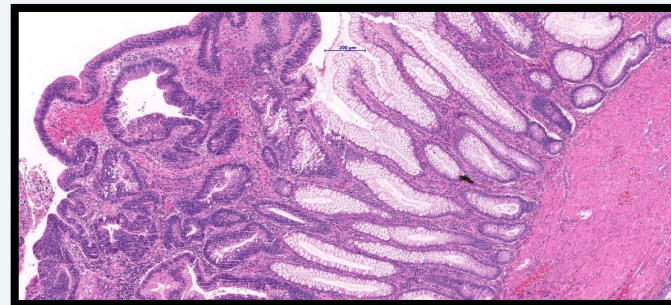


Fig. F — High power: dysplastic changes without invasion

CLINICAL TIMELINE & OUTCOME

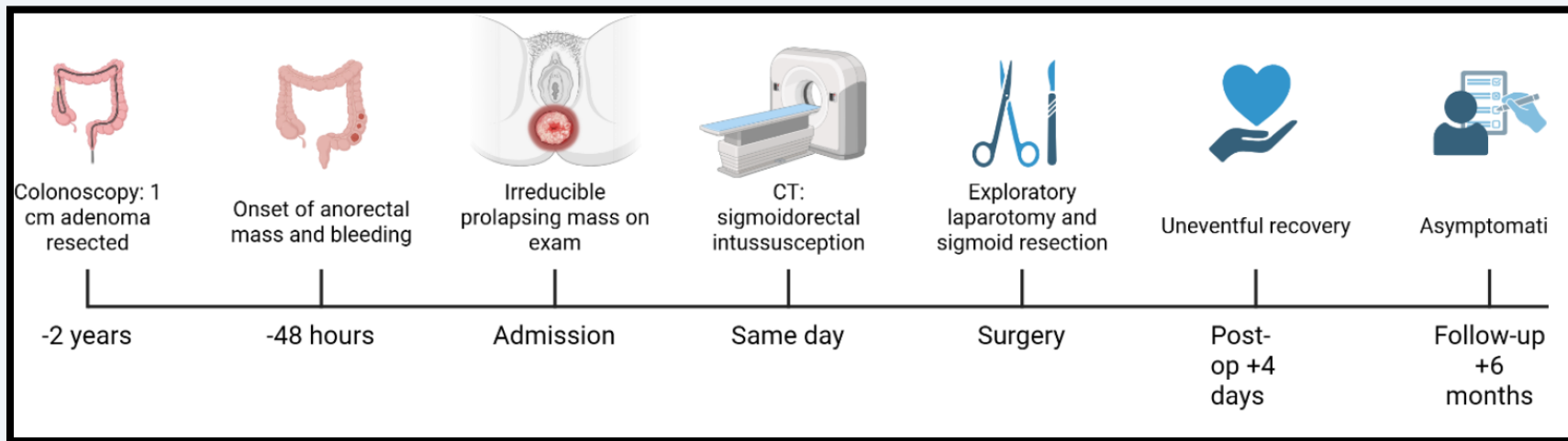


Fig. G — Clinical Timeline of Diagnosis and Surgical Management

Postoperative

Uneventful recovery
Bowel function restored promptly
No complications

Discharge

Good general condition
Post-op day 4

Follow-up (6 months)

Asymptomatic
No recurrent prolapse, bleeding, or obstruction

Patient Perspective

Satisfied with outcome
Anxiety related to acute/unexpected presentation resolved

1 Diagnostic Pitfall

Acute exteriorization of an anorectal mass strongly mimics rectal prolapse. Key red flags for intussusception: ACUTE onset, PAIN, BLEEDING, and IRREDUCIBILITY. Sigmoidorectal intussusception lacks uniform concentric prolapse folds — presents as asymmetric mass with a discernible leading lesion.

2 Role of CT Imaging

CT is the cornerstone of diagnosis. The 'target/donut' sign (bowel-within-bowel + mesenteric fat) is pathognomonic. Preoperative CT avoided inappropriate perineal reduction attempts that would have been oncologically dangerous. Many adult intussusceptions are still diagnosed intraoperatively — CT can change that.

3 Benign vs. Malignant Lead Points

Although malignant lesions account for most colonic intussusceptions, large BENIGN lesions can produce an identical clinical/radiological picture. Lesion SIZE, not histology alone, drives telescoping. The strong malignancy association still justifies oncologic principles regardless of preoperative suspicion.

4 Surveillance Gap

A sigmoid tubulovillous adenoma was resected 2 years prior — without interval surveillance colonoscopy. Whether the current lesion represents recurrence, incomplete resection, or a new lesion remains uncertain. This underscores the critical importance of appropriate post-polypectomy surveillance intervals.

KEY TAKEAWAYS



01

Maintain High Index of Suspicion

Any adult with an irreducible anorectal mass, particularly with acute onset, pain, bleeding — consider intussusception before labelling it rectal prolapse.

02

CT is Indispensable

Contrast-enhanced CT ("target sign") is critical for diagnosis and prevents inappropriate perineal/prolapse-directed procedures that could be oncologically disastrous.

03

Oncologic Principles Apply

The high malignancy risk in colonic intussusception justifies segmental resection with negative margins regardless of suspected benign etiology.

04

Surveillance Saves Lives

Patients with advanced adenomatous polyps require strict post-polypectomy surveillance. Absence of interval endoscopy may allow lesions to grow to clinically dangerous sizes.